Project Charter (Version ___3___) Date: __8-23-2011_____

Project Name: *Write out the entire, specific name.*

Climate Change Incorporation into CWP Update 2013

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Project Manager	Elissa Lynn

Project Objective Statement: *What must the project do? By When? Keep this statement to 25 words or less. Make it SMART (Specific, Measurable, Achievable, Relevant, and Time-based).*

Provide greater detail and regionally specific climate change information into Update 2013 than in Update 2009, including regionally appropriate and statewide adaptation and mitigation strategies, resource management strategies, and climate change scenarios decision support.

Triple Constraint Trade-off

Resources	S	*Select a different flexibility letter for each constraint* *N= Not Flexible* *S= Somewhat Flexible* *M= Most Flexible*
Schedule	N	
Scope	M	

Estimated Start Date:	Jan., 2011	Estimated End Date:	Dec., 2013

Project Deliverables: *What is the project going to produce? Create a list of tangible products that will result from project.*

- Climate Change regional content for Regional Reports CWP Update 2013
- Climate Change content for statewide strategies in Highlights and Key Recommendations, CWP Update 2013
- Climate Change content embedded within Resource Management Strategies for CWP Update 2013
- Decision Support for Scenarios of future water demands and management responses, CWP Update 2013
- General assessment of regional-level climate change responses to 2009 RMS's and IRWM proposals.
- IRWM Handbook Synopsis and linkages, 2011
- Climate Change Vulnerability Assessment Checklist, 2012 (potential)
- Regional energy/carbon intensity estimates for water - map, 2012 (potential)
- California Energy Commission *Vulnerability and Adaptation* Study Synopsis and linkages, 2012
- Decision-making Guidance for incorporating Climate Change (from DWR Characterization Study and Analysis Framework), Synopsis, 2012
- Downscaled Regional Climate Data Toolbox (from DWR Climate Change Analysis Framework), Synopsis and linkages, 2012
- National Research Council *Sea Level Rise in California, Oregon, and Washington* Study Synopsis & linkages, 2012
- Synopsize CEC's 2005 Water-Energy Relationship study, or follow developments of potential DWR replication study
- Monitor National Adaptation Plan by U.S. Government, 2012
- Monitor useful information from potential National Climate Assessment by U. S. Government, 2013

Strategic Fit: *What is the Strategic Initiative Identifier for this project?*

Climate change inclusion into the planning process matches all five of the Department's strategic objectives; sustainability and integrated water management are key strategies for adjusting to supply and demand impacts from cc. Economic advantages may be gained by responding to changing hydrology; support for ecosystem health may also be achievable when considering cc, although this is a developing area of water management. Improved quality of life for citizens of CA will be achieved through regionally appropriate responses to adapt to cc, and providing easier access to downscaled climate change modeling information. Energy consumption reduction in water management matches statewide objectives to reduce GHG (greenhouse

gas) emissions. This work also supports strategic objectives of the California Water Plan to forge a common strategic vision for inter-regional resource management issues and expand engagement at the regional and local levels to properly characterize regional visions, preferred actions and implementation strategies.

Customer: *Who are you doing the project for?*

Water Plan Users, primarily the Executive and Legislative bodies of the State, the general public, and local and regional water managers.

Customer Benefits: *What customer requirements does this project address? Relate these to: increase revenue, avoid costs, improve service, and/ or comply with a mandate? Create a short list of customer benefits.*

Adaptation strategies will have the benefit of providing regionally appropriate data and guidance to local water managers for responding to anticipated local hydrology changes due to climate change; timing of runoff, temperature changes, and water supply, etc. Mitigation strategies reduce energy consumption, which assists in reducing GHG's (Greenhouse Gases).

Success Determination Factors *How will the success of the project be determined from the customer's perspective? Make criteria measurable so there is no doubt as to the project's success. Create a short list.*

Providing regionally appropriate climate change adaptation strategies into Update 2013 Regional reports.
Include scientifically sound methodology to incorporate cc into water supply and demand modeling scenarios, and choose scenarios that reflect a variety of potential futures.
Provide guidance on locating latest data on cc impacts to California, and downscaled climate change data.
Performance Measures going forward will be based on value and appropriateness of the mitigation and adaptation strategies, and a measure of IRWM groups that make use of these strategies (part of Progress Report CWP 2013, or future reports).

Project Background: *What is the primary motivation for this project? Include a brief high level description of the business area, the current situation, the desired situation, and the gaps that exist. This summary builds on your description in the Project Initiation form.*

Climate change stems from a steady gradual increase in global temperatures that has been taking place over recent decades. Determining the local impacts of and response strategies to climate change in California involves climate modeling downscaled to the regional level. Current developments in climate science and research can provide guidance for projecting likely ranges of temperatures and precipitation changes by region. Responding to these hydrologic changes and reducing their impact are known as adaptation strategies. Reducing GHG (Greenhouse Gas) impacts by reducing energy consumption are known as mitigation strategies. Many adaptation and mitigation strategies are conducted at the regional level, so CWP update 2013 will include climate change in the regional reports, based on appropriate hydrologic impact, as well as statewide strategies in the broader document. Strategies and vulnerabilities to climate change will also appear in the Resource Management Strategies. This project will also be tasked with technical assistance to the Statewide Water Analysis Network choice of scenarios related to climate change impacts.
These four approaches to incorporating climate change into CWP 2013 will improve upon the initial steps taken in CWP 2009 to include responses to climate change.

Project Scope:

In Scope: *List areas and functionality included in project.*	Out of Scope: *List areas and functionality <u>not</u> included in project.*
Adaptation strategies to respond to hydrologic changes by region, and statewide strategies Mitigation strategies to reduce GHG's by reducing energy consumption as relates to water management Climate change and climate Data and modeling results accessibility for the public Guidance materials for local planners seeking to include climate change in their planning process Technical support for choosing climate change future scenarios by Statewide Water Analysis Network, potentially using the Climate Change Technical Advisory Group, CCTAG Evaluating the Resource Management strategies as relate to climate change To inform decision making at the State Level (Exec & Leg)	CEQA guidance for locals

Dependent Projects: *What projects must be underway or completed before this project can be successful?*

SWAN scenarios assumptions and estimates for climate change scenarios (Statewide Water Analysis Network)
IRWM handbook
California Energy Commission Vulnerability study completion
National Research Council Sea Level rise study completion
DWR's Climate Change Analysis Framework Project (guidance document and scenario/data toolbox)
Potential DWR replication of CEC's 2005 Water-Energy Relationship study
WETCAT (potential joint water-energy plan
Other relevant Mitigation projects – ask Hawks

Risks: *What characteristics or situations could cause this project to fail? Identify those items which are outside the jurisdiction of project and could result in a "show-stopper" to the project success. Create a short list.*

Downscaled data availability
Quality and scope risk if the dependent projects from other agencies and departments are not complete
SWAN scenarios limitations
CC budget/ resources for cc team

Assumptions and Constraints: *What assumptions were made in defining project? Are there constraints to the execution of project? List assumptions and constraints.*

Scenarios will advance 2009 climate change incorporation, but SWAN will determine which cc scenarios to use (BDCP or IPCC, etc.), possibly with assistance of the Climate Change Technical Advisory Group (CCTAG).
Regional adaptation strategies will be based on best science available, perhaps a broad brush in some cases, and will be the same for regions with similar cc issues.
Assumptions include completion of related projects, both within and external to DWR (see Project Deliverables).

This Project Should Have: *Check all that apply*

Project Management Plan	Environmental Stewardship Plan	Work Breakdown Structure	Communications Plan	Procurement Plan	Human Resources Plan
x☐	☐	☐	x☐	☐	☐
Quality Management Plan	**Stakeholder Register**	**Risk Register**	**Project Budget**	**Project Schedule**	**DWR Form 1498**
☐	x☐	☐	x☐	x☐	☐

Major High-Level Milestone Targets: *What events measure progress? E.g. Initiation Approved, Analysis Complete.*

Milestone	Target Date
CC vulnerability assessment checklist, DWR	2012
CEC Vulnerability and Assessment Study synopsis	2012
CWP scenarios selection with SWAN	2011
DWR Characterization study, Framework guidance and downscaled data toolbox for climate change, DWR synopses	2012
NRC Sea Level Rise study synopsis	2012
CWP 2013 Regional reports, Highlights and Key Recommendations and RMS climate change sections, DWR	2013

Project Core Team Members

Team Member	Phone/E-mail	Role

Elissa Lynn	elynn@water.ca.gov	Project coordinator
Climate Change Staff	Regional offices, others	Team members, content analysis
Megan Fidell	mfidell@water.ca.gov	Technical coordinator for CWP/ CC
DWR CC Analysis Framework Group Abdul Khan and Andrew Schwarz	akhan@water.ca.gov, aschwarz@water.ca.gov	Guidance on incorporating climate change into planning documents
SWAN coordination	juricich@water.ca.gov	Scenarios support

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Approved By:	Date: